OIPE

RAW SEQUENCE LISTING DATE: 07/27/2001 PATENT APPLICATION: US/09/889,075 TIME: 13:49:30

Input Set : A:\37581 Seq. Listing, Catalytic Molecules.txt

Output Set: N:\CRF3\07272001\1889075.raw

```
3 <110> APPLICANT: Johnson & Johnson Pty Ltd
             Unisearch Limited
                                                                     ENTERED
      6 <120> TITLE OF INVENTION: Catalytic molecules
      8 <140> CURRENT APPLICATION NUMBER: US/09/889,075
C--> 8 <141> CURRENT FILING DATE: 2001-07-11
W-->
      8 <150> PRIOR APPLICATION NUMBER: PP 8103
      9 <151> PRIOR FILING DATE: 1999-01-11
     11 <160> NUMBER OF SEQ ID NOS: 20
     13 <170> SOFTWARE: PatentIn Ver. 2.1
    15 <210> SEQ ID NO: 1
    16 <211> LENGTH: 3132
    17 <212> TYPE: DNA
    18 <213> ORGANISM: Homo sapiens
    20 <400> SEQUENCE: 1
    21
           ccgcagaact tggggagccg ccgccgccat ccgccgccgc agccagcttc cgccgccgca 60
    23
           ggaccggccc ctgccccagc ctccgcagcc gcggcgcgtc cacgcccgcc cgcgcccagg 120
           gcgagtcggg gtcgccgct gcacgcttct cagtgttccc cgcgccccgc atgtaacccg 180
    25
    27
           gccaggcccc cgcaacggtg tcccctgcag ctccagcccc gggctgcacc cccccgcccc 240
    29
           gacaccaget etecageetg etegteeagg atggeeggg ecaaggeega gatgeagetg 300
    31
           atgtccccgc tgcagatctc tgacccgttc ggatcctttc ctcactcgcc caccatggac 360
    33
           aactacccta agctggagga gatgatgctg ctgagcaacg gggctcccca gttcctcggc 420
    35
           37
           ggaggcggcg ggggcggcag caacagcagc agcagcagca gcaccttcaa ccctcaggcg 540
    39
           gacacgggcg agcagcccta cgagcacctg accgcagagt cttttcctga catctctctg 600
    41
           aacaacgaga aggtgctggt ggagaccagt taccccagcc aaaccactcg actgccccc 660
    43
           atcacctata ctggccgctt ttccctggag cctgcaccca acagtggcaa caccttgtgg 720
    45
           cccgagcccc tcttcagctt ggtcagtggc ctagtgagca tgaccaaccc accggcctcc 780
    47
           tegtecteag caccatetee ageggeetee teegeeteeg ecteecagag eccaeceetg 840
    49
           agctgcgcag tgccatccaa cgacagcagt cccatttact cagcggcacc caccttcccc 900
    51
           acgccgaaca ctgacatttt ccctgagcca caaagccagg ccttcccggg ctcggcaggg 960
    53
           acagcgctcc agtacccgcc tcctgcctac cctgccgcca agggtggctt ccaggttccc 1020
    55
           atgateceeg actaectgtt tecacageag cagggggate tgggeetggg caececagae 1080
    57
           cagaageeet tecagggeet ggagageege acceageage ettegetaac eeetetgtet 1140
    59
           actattaagg cetttgeeae teagteggge teecaggace tgaaggeeet caataceage 1200
    61
           taccagtece ageteateaa acceageege atgegeaagt ateceaaceg geecageaag 1260
    63
           acgececece acgaacgeee ttacgettge ecagtggagt cetgtgateg ecgettetee 1320
    65
           cgctccgacg agctcacccg ccacatccgc atccacacag gccagaagcc cttccagtgc 1380
    67
           cgcatctgca tgcgcaactt cagccgcagc gaccacctca ccacccacat ccgcacccac 1440
    69
           acaggcgaaa agcccttcgc ctgcgacatc tgtggaagaa agtttgccag gagcgatgaa 1500
    71
           cgcaagaggc ataccaagat ccacttgcgg cagaaggaca agaaagcaga caaaagtgtt 1560
    73
          gtggcctctt cggccacctc ctctctct tcctacccgt ccccggttgc tacctcttac 1620
    75
          ccgtccccgg ttactacctc ttatccatcc ccggccacca cctcataccc atcccctgtg 1680
    77
          cecaccteet teteetetee eggeteeteg acetacceat eccetgtgea eagtggette 1740
    79
          ccctccccgt cggtggccac cacgtactcc tctgttcccc ctgctttccc ggcccaggtc 1800
    81
          agcagettee ettecteage tgteaceaac teetteageg cetecacagg gettteggae 1860
```

atgacagcaa ccttttctcc caggacaatt gaaatttgct aaagggaaag gggaaagaaa 1920

#1/2

83



RAW SEQUENCE LISTING DATE: 07/27/2001 PATENT APPLICATION: US/09/889,075 TIME: 13:49:30

Input Set : A:\37581 Seq. Listing, Catalytic Molecules.txt
Output Set: N:\CRF3\07272001\1889075.raw

```
85
       gggaaaaggg agaaaaagaa acacaagaga cttaaaggac aggaggagga gatggccata 1980
 87
       ggagaggagg gttcctctta ggtcagatgg aggttctcag agccaagtcc tccctctcta 2040
 89
       ctggagtgga aggtctattg gccaacaatc ctttctgccc acttcccctt ccccaattac 2100
       tattecettt gaetteaget geetgaaaca geeatgteea agttetteae etetateeaa 2160.
 91
 93
       agaacttgat ttgcatggat tttggataaa tcatttcagt atcatctcca tcatatgcct 2220
 95
       gaccccttgc tecetteaat getagaaaat egagttggea aaatggggtt tgggeeete 2280
       agagecetge cetgeaceet tgtacagtgt etgtgecatg gatttegttt ttettggggt 2340
 97
 99
       actcttgatg tgaagataat ttgcatattc tattgtatta tttggagtta ggtcctcact 2400
101
        tgggggaaaa aaaaaaaaa aagccaagca aaccaatggt gatcctctat tttgtgatga 2460
103
        tgctgtgaca ataagtttga acctttttt ttgaaacagc agtcccagta ttctcagagc 2520
105
        atgtgtcaga gtgttgttcc gttaaccttt ttgtaaatac tgcttgaccg tactctcaca 2580
107
        tgtggcaaaa tatggtttgg tttttctttt tttttttga aagtgttttt tcttcgtcct 2640
        tttggtttaa aaagtttcac gtcttggtgc cttttgtgtg atgccccttg ctgatggctt 2700
109
111
        gacatgtgca attgtgaggg acatgctcac ctctagcctt aaggggggca gggagtgatg 2760
113
        115
        agaatgtaag aaaacaaaat ctaaaacaaa atctgaactc tcaaaagtct attttttaa 2880
117
        ctgaaaatgt aaatttataa atatattcag gagttggaat gttgtagtta cctactgagt 2940
119
        aggcggcgat ttttgtatgt tatgaacatg cagttcatta ttttgtggtt ctattttact 3000
121
        ttgtacttgt gtttgcttaa acaaagtgac tgtttggctt ataaacacat tgaatgcgct 3060
123
        ttattgccca tgggatatgt ggtgtatatc cttccaaaaa attaaaacga aaataaagta 3120
125
        gctgcgattg gg
129 <210> SEQ ID NO: 2
130 <211> LENGTH: 15
131 <212> TYPE: DNA
132 <213> ORGANISM: Artificial Sequence
134 <220> FEATURE:
135 <223> OTHER INFORMATION: Description of Artificial Sequence: Catalytic
136
          domain of DNAzyme
138 <400> SEQUENCE: 2
139
        ggctagctac aacqa
                                                                         15
143 <210> SEQ ID NO: 3
144 <211> LENGTH: 33
145 <212> TYPE: DNA
146 <213> ORGANISM: Artificial Sequence
148 <220> FEATURE:
149 <223> OTHER INFORMATION: Description of Artificial Sequence: DNAzyme
151 <400> SEQUENCE: 3
       caggggacag gctagctaca acgacgttgc ggg
                                                                         33
156 <210> SEQ ID NO: 4
157 <211> LENGTH: 33
158 <212> TYPE: DNA
159 <213> ORGANISM: Artificial Sequence
161 <220> FEATURE:
162 <223> OTHER INFORMATION: Description of Artificial Sequence: DNAzyme
164 <400> SEQUENCE: 4
       tgcagggag gctagctaca acqaaccqtt qcq
                                                                         33
169 <210> SEQ ID NO: 5
170 <211> LENGTH: 33
171 <212> TYPE: DNA
```



172 <213> ORGANISM: Artificial Sequence

RAW SEQUENCE LISTING DATE: 07/27/2001 PATENT APPLICATION: US/09/889,075 TIME: 13:49:30

Input Set : A:\37581 Seq. Listing, Catalytic Molecules.txt
Output Set: N:\CRF3\07272001\I889075.raw

174 <220> FEATURE: 175 <223> OTHER INFORMATION: Description of Artificial Sequence: DNAzyme 177 <400> SEQUENCE: 5 catcctggag gctagctaca acgagagcag gct 33 182 <210> SEQ ID NO: 6 183 <211> LENGTH: 33 184 <212> TYPE: DNA 185 <213> ORGANISM: Artificial Sequence 187 <220> FEATURE: 188 <223> OTHER INFORMATION: Description of Artificial Sequence: DNAzyme 190 <400> SEQUENCE: 6 ccgcggccag gctagctaca acgacctgga cga 33 195 <210> SEQ ID NO: 7 196 <211> LENGTH: 33 197 <212> TYPE: DNA 198 <213> ORGANISM: Artificial Sequence 200 <220> FEATURE: 201 <223> OTHER INFORMATION: Description of Artificial Sequence: DNAzyme 203 <400> SEQUENCE: 7 ccgctgccag gctagctaca acgacccgga cgt 33 208 <210> SEQ ID NO: 8 209 <211> LENGTH: 33 210 <212> TYPE: DNA 211 <213> ORGANISM: Artificial Sequence 213 <220> FEATURE: 214 <223> OTHER INFORMATION: Description of Artificial Sequence: DNAzyme 216 <400> SEQUENCE: 8 gcggggacag gctagctaca acgacagctg cat 33 221 <210> SEQ ID NO: 9 222 <211> LENGTH: 33 223 <212> TYPE: DNA 224 <213> ORGANISM: Artificial Sequence 226 <220> FEATURE: 227 <223> OTHER INFORMATION: Description of Artificial Sequence: DNAzyme 229 <400> SEQUENCE: 9 cagcggggag gctagctaca acgaatcagc tgc 33 234 <210> SEQ ID NO: 10 235 <211> LENGTH: 33 236 <212> TYPE: DNA 237 <213> ORGANISM: Artificial Sequence 239 <220> FEATURE: 240 <223> OTHER INFORMATION: Description of Artificial Sequence: DNAzyme 242 <400> SEQUENCE: 10 243 ggtcagagag gctagctaca acgactgcag cgg 33 247 <210> SEQ ID NO: 11 248 <211> LENGTH: 3068 249 <212> TYPE: DNA 250 <213> ORGANISM: Mus musculus



RAW SEQUENCE LISTING DATE: 07/27/2001 PATENT APPLICATION: US/09/889,075 TIME: 13:49:30

Input Set : A:\37581 Seq. Listing, Catalytic Molecules.txt

Output Set: N:\CRF3\07272001\1889075.raw

252	<400> SEQUENCE	E: 11					
253	ggggagccgo	c cgccgcgatt	: cgccgccgcc	gccagettec	geegeegeaa	gateggeece	60
255	tgccccagco	tccgcggcag	ccctgcgtcc	accacqqqcc	geggetaceg	ccagcctggg	120
257	ggcccaccta	a cacteceege	agtgtgcccc	tgcaccccqc	atgtaacccg	gccaaccccc	180
259	ggcgagtgtg	g ccctcagtag	cttcggcccc	gggctgcgcc	caccacccaa	catcagttct	240
261	ccageteget	ggtccgggat	qqcaqcqqcc	aaggccgaga	tgcaattgat	gtctccgctg	300
263	cagatetete	accepttegg	ctcctttcct	cactcaccca	ccatggacaa	ctaccccaaa	360
265	ctggaggaga	tgatgctgct	gaqcaacqqq	gctccccagt	teeteggtae	tgccggaacc	420
267	ccagagggca	qcqqcqqtaa	tagcagcagc	agcaccagca	acaaaaacaa	tggtgggggc	480
269	ggcagcaaca	gcggcagcag	cqccttcaat	cctcaaggg	agccgagcga	acaaccctat	540
271	gagcacctga	ccacagagto	cttttctgac	atcgctctga	ataatgagaa	ggcgatggtg	600
273	gagacgagtt	ateccaqeca	aacqactcqq	ttqcctccca	tcacctatac	tggccgcttc	660
275	tecetggage	ccqcacccaa	caqtqqcaac	actttgtggc	ctgaacccct	tttcagccta	720
277	gtcagtggcc	togtgagcat	gaccaatect	ccgacctett	catectegge	gccttctcca	780
279	gctgcttcat	catetteete	tacctcccaa	agecegeeee	tgagetgtge	cgtgccgtcc	840
281	aacqacaqca	gtcccatcta	ctcaactaca	cccacctttc	ctactcccaa	cactgacatt	900
283	tttcctgage	cccaaaqcca	ggcctttcct	gactegacaa	gcacagcctt	gcagtacccg	960
285	cctcctqcct	accetaceae	caaaggtggt	ttccaggttc	ccatgatccc	tgactatctg	1020
287	tttccacaac	aacagggaga	cctgagcctg	aacacccaa	accadaaccc	cttccagggt	1020
289	ctggagaacc	gtacccagca	accttcactc	actocactat	ccactattaa	agcettegee	1140
291	actcagtcgg	geteccagga	cttaaagget	cttaatacca	cctaccaatc	ccagctcatc	1200
293	aaacccagcc	gcatgcgcaa	gtaccccaac	caaccaaca	agacaccccc	ccatgaacgc	1260
295	ccatatgctt	gccctgt.cga	gtcctgcgat	caccacttt	ctcactcaa	tgagcttacc	1200
297	cgccatatcc	gcatccacac	addccadaad	cccttccagt	atcasatata	catgcgtaac	1320
299	ttcagtcgta	gtgaccacct	taccacccac	atccacaccc	acacaggggg	gaagcctttt	1440
301	gcctgtgaca	tttgtgggag	gaagtttgcc	aggagtgatg	aacacaagaa	gcataccaaa	1500
303	atccatttaa	gacagaagga	caagaaagca	gacaaaagtg	taataacete	cccggctgcc	1560
305	tcttcactct	cttcttaccc	atccccagtg	actaceteet	acceatecee	tgccaccacc	1620
307	tcattcccat	cccctatacc	cacttcctac	tectetecta	actectecae	ctacccatct	1690
309	cctgcgcaca	gtagetteee	atcaccatca	ataaccacca	cetttacete	cgttccacct	1740
311	gctttcccca	cccaggtcag	cagetteecg	tetacaaaca	tragragete	cttcagcacc	1000
313	tcaactggtc	tttcagacat	dacadcdacc	ttttctccca	agacaattaa	aatttgctaa	1060
315	agggaataaa	agaaagcaaa	addadaddca	ggaaagacat	aaaaacacaa	gagggaagag	1000
317	atggccgcaa	gaggggggag	ctcttaggtc	agatggacac	teteagagag	aagtccttct	1000
319	actcacgagt	адааддассд	ttggccaaca	accettteac	ttaccatccc	tgcctccccc	1300
321	atcetattee	ctttgacttc	agctgcctga	aacagccatg	tccaactcct	tcacctctat	2110
323	ccaaaggact.	tgatttgcat	agtattagat	aaatcatttc	agtatoctot	ccatcacatg	2100
325	. cctaaccett	getecettea	gcactagace	atcaagttgg	gtattett	aaaaaatggg	2220
327	tttgggcct	cagaaccctg	ccctacatet	ttatacaga	totatagaat	ggattttgtt	2220
329	tteettaaaa	tattetteat	ataaaataa	tttqcatact	ctattetata	atttggagtt	2200
331	aaatcctcac	tttagagaaa	gagaagaaa	acceacce	accastrate	atcctctatt	2340
333	ttgtgatgac	tetactataa	cattaggttt	gaaggatttt	ttttttaaa	cagcagtcct	2400
335	aggtattaac	tagagcatat	atcagagtat	tattagatta	attttataaa	tactggctcg	2460
337	actgtaactc	tracatotoa	caaagtatgg	tttatttaat	tagattttat	ttttgagaat	2520
339	ttttttaccc	atccctttaa	tttcaaaagt	ttcacctct+	agtgoottt	gtgtgacacg	2580
341	ccttccgatg	gettgacatg	cacagatata	addagagaga	teacettace	cttaaggggg	2700
343	taggagtgat	atattaaaaa	agacttgage	agggacacge acaaaaaacaa	adaaaaaaaa	tgagctgagc	2760
345	ttteaatete	cagaatgtaa	assassass	tttaaacaaa	aatotoaaot	ctcaaaagtc	2/00
347	tatttttcta	aactgaaaat	ataaatttat	acatotatto	addadttaas	gtgttgtggt	2020
			- Junual Club	a ca co ca c c c	ayyayıtyya	graciarat	200U

RAW SEQUENCE LISTING DATE: 07/27/2001 PATENT APPLICATION: US/09/889,075 TIME: 13:49:30

Input Set : A:\37581 Seq. Listing, Catalytic Molecules.txt
Output Set: N:\CRF3\07272001\1889075.raw

```
349
        tacctactga gtaggctgca gtttttgtat gttatgaaca tqaaqttcat tattttqtqq 2940
351
        ttttatttta ctttgtactt gtgtttgctt aaacaaagta acctgtttgg cttataaaca 3000
353
        cattgaatgc gctctattgc ccatgggata tgtggtgtgt atccttcaga aaaattaaaa 3060
        ggaaaaat
355
                                                                           3068
359 <210> SEQ ID NO: 12
360 <211> LENGTH: 4321
361 <212> TYPE: DNA
362 <213> ORGANISM: Rattus rattus
364 <400> SEOUENCE: 12
        cegeggagee teagetetae gegeetggeg cecteectae gegggegtee eegacteeeg 60
367
        cgcgcgttca ggctccgggt tgggaaccaa ggaggggag ggtgggtgcg ccgacccgga 120
369
        aacaccatat aaggagcagg aaggatcccc cgccggaaca gaccttattt gggcagcgcc 180
371
        ttatatggag tggcccaata tggccctgcc gcttccggct ctgggaggag gggcgaacgg 240
373
        gggttggggc gggggcaagc tgggaactcc aggagcctag cccgggaggc cactgccgct 300
375
        gttecaatac taggetttee aggageetga gegeteaggg tgeeggagee ggtegeaggg 360
377
        tggaagegee cacegetett ggatgggagg tetteaegte acteegggte eteceggteg 420
379
        gtccttccat attagggctt cctgcttccc atatatggcc atgtacgtca cggcggaggc 480
381
        gggcccgtgc tgtttcagac ccttgaaata gaggccgatt cggggagtcg cgagagatcc 540
383
        cagogogoag aacttgggga googoogoog cgattogoog coqocogocag ottooqoogo 600
385
        cgcaagatcg gecectgeec cageeteege ggcaqeeetg egtecaceae gggeegegge 660
387
        caccgccage ctgggggccc acctacacte eccgcagtgt geceetgeac eccgcatgta 720
389
        acceggecaa cateeggega gtgtgeeete agtagetteg geeeeggget gegeeeacea 780
391
        cccaacatca gctctccagc tcgcacgtcc gqqatqqcaq cqqccaaqqc cqaqatqcaa 840
393
        ttgatgtete egetgeägat etetgaceeg tteggeteet tteeteacte acceaecatg 900
395
        gacaactacc ccaaactgga ggagatgatg ctgctgagca acggggctcc ccagttcctc 960
397
        ggtgctgccg gaaccccaga gggcagcggc ggcaataaca gcagcagcag caqcaqcagc 1020
399
        agcagcgggg gcggtggtgg gggcggcagc aacagcgqca qcagcqcttt caatcctcaa 1080
401
        ggggagccga gcgaacaacc ctacgagcac ctgaccacag gtaagcggtg gtctgcgccg 1140
403
        aggetgaate eccettegtg actaceetaa egteeagtee tttgcageae ggaeetgeat 1200
405
        ctagatetta gggaegggat tgggatttee etetatteea caeageteea gggaettqtg 1260
407
        ttagagggat gtctggggac cccccaaccc tccatccttg cqqqtqcqcq qaqqqcaqac 1320
        cgtttgtttt ggatggagaa ctcaagttgc gtgggtggct ggagtgggg agggtttgtt 1380
409
411
        ttgatgagca gggttgcccc ctcccccgcg cgcgttgtcg cgagccttgt ttgcagcttg 1440
413
       ttcccaagga agggctgaaa tctgtcacca gggatgtccc gccgcccagg gtaggggggc 1500
415
       geattagetg tggccactag ggtgctggeg ggatteeete accceggaeg eetgetgegg 1560
417
       agegetetea gagetgeagt agagggggat tetetgtttg egteagetgt egaaatgget 1620
419
       ctgccactgg agcaggtcca ggaacattgc aatctgctgc tatcaattat taaccacatc 1680
421
       gagagtcagt ggtagccggg cgacctcttg cctggccgct tcggctctca tcgtccagtg 1740
423
       attgetetee agtaaccagg cetetetgtt etettteetg ecagagteet tttetgacat 1800
425
       cgctctgaat aacgagaagg cgctggtgga qacaaqttat cccagccaaa ctacccqqtt 1860
427
      genteccate acctatacty geogeticte ectygagent geacceaaca gtggeaacae 1920
429
       tttgtggcct gaaccccttt tcaqcctagt cagtqqcctt gtqaqcatqa ccaaccctcc 1980
431
       aacctettea teeteagege etteteeage tgetteateg tetteetetg eeteecaqaq 2040
433
       cccacccctg agetgtgccg tgccgtccaa cgacagcagt cccatttact cagetgcace 2100
435
       cacctttect acteccaaca etgacatttt teetgageee caaageeagg cettteetgg 2160
437
       ctctgcaggc acagccttgc agtacccgcc tectgcctac cctgccacca aqqqtqqttt 2220
439
       ccaggttccc atgatccctg actatctgtt tccacaacaa cagggagacc tqagcctqqq 2280
441
       caccccagac cagaagccct tecagggtet ggagaaccgt acccagcage ettegeteae 2340
443
       tocactatec actateaaag cettegeeac teagteggge teecaggact taaaqqetet 2400
```

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/889,075

DATE: 07/27/2001 TIME: 13:49:31

Input Set : A:\37581 Seq. Listing, Catalytic Molecules.txt

Output Set: N:\CRF3\07272001\1889075.raw

L:8 M:270 C: Current Application Number differs, Replaced Current Application No

L:8 M:271 C: Current Filing Date differs, Replaced Current Filing Date

L:0 M:201 W: Mandatory field data missing, FILE REFERENCE